



(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention
of the grant of the patent:
24.05.2000 Bulletin 2000/21

(51) Int Cl.⁷: **B65D 83/08**

(21) Application number: **96304451.6**

(22) Date of filing: **14.06.1996**

(54) **Container for wetted tissues**
Behälter für befeuchtete Tücher
Récipient pour serviettes mouillées

(84) Designated Contracting States:
BE DE FR GB IT NL SE

(30) Priority: **15.06.1995 JP 14909295**
28.02.1996 JP 4171396

(43) Date of publication of application:
18.12.1996 Bulletin 1996/51

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Description

[0001] The present invention relates to a container for wetted tissues and more particularly to such a container having a movable lid member so improved that it can be automatically opened by one-touch operation.

[0002] Conventional containers for wetted tissues comprise, for example, a body of the container made of a synthetic resin material constructed so that wetted tissues for cleaning a user's skin can be picked out one by one from a stack of wetted tissues packed therein and a lid made of synthetic resin adapted to fit on the body to cover its upper opening. The lid comprises a stationary lid member directly fitting on the upper opening of the body and a movable lid member having its base end hinged to one side end of an opening formed substantially in a central zone of the stationary lid member through which wetted tissues will be picked out one by one for selectively opening or closing the opening. Between the movable lid member and the stationary lid member, there is provided a snap-locking means by which the movable lid member is snap-locked to the stationary lid member as the movable lid member is closed and this means may be operated by a user to release the snap-locking.

[0003] However, the above-mentioned well known container has been inconvenient in that the snap-locking can not be released by one-touch operation or if the snap-locking can be released, a user is required to pinch the movable lid member between the user's fingers.

[0004] EP-A-0355391 discloses a container for wetted tissues having a body for containing the tissues with an upper opening closed by a fixed stationary lid member to which a moveable lid member is hinged. The upper surface of the stationary lid member has an annular wall defining a central surface region having an opening through which the wetted tissues can be picked out of the container. The movable lid member, when closed, covers the whole of the stationary lid member and has an annular wall on its inner surface which fits over the annular wall of the stationary lid member.

[0005] In view of the problem as mentioned above, it is a principal object of the invention to provide a container for wetted tissues constructed so that the movable lid member can be automatically opened.

[0006] According to the invention, there is provided a container for wetted tissues comprising:

a container body having a first opening on an upper side thereof through which a stack of wetted tissues is packed thereinto;

a stationary lid member including an outer periphery fitted on said first opening, a first upper surface region defined by said outer periphery and a first peripheral edge, a second upper surface region defined by said first peripheral edge, and a second opening formed in said second upper surface region substantially at a central zone thereof through

which wetted tissues are picked out;

a movable lid member including a second peripheral edge projecting from an inner surface thereof so as to fit on said stationary lid member thereby to define a space between said second upper surface region of said stationary lid member and said inner surface of said movable lid member, having spaced apart front and rear edges and being hinged to said stationary lid member;

said container body, said stationary lid member and said movable lid member each being molded from a suitable synthetic resin material; and

characterized in that:

said outer periphery of said stationary lid member is a locking periphery adapted for detachably and sealably fitting on said first opening;

said first peripheral edge has spaced apart front, rear and side edges and said movable lid member is hinged to said stationary lid member adjacent said rear edge, said second peripheral edge being adapted to fit on said first peripheral edge;

an elastic strip made of a nonmetallic material normally biasing said movable lid member to be opened extends across said rear edge of said stationary and movable lid members and is held between said second upper surface region and said inner surface of said movable lid member wherein said elastic strip is at least partially curved and charged with an elastic energy within said space as said movable lid member is closed;

a locking projection is provided on at least one of said front edges of said stationary and movable lid members opposed to each other upon closure of said movable lid member so that they can be detachably engaged with each other; and

said first upper surface region is provided adjacent said locking projection with an elastically deformable depressor means serving to release said engagement of said locking projection.

[0007] According to the invention, the depression of the depressor means by a user's finger causes at least one of the depressor means and a region in proximity thereof to be elastically deformed and thereby the movable lid member which has been held by the locking projection in its closed state to be easily released whereupon the movable lid member is automatically opened under the elastic force of the elastic strip about the hinged portion. With the movable lid member having been opened in this manner, it is possible to pick out the wetted tissues through the opening of the stationary lid member. After picking out the wetted tissues, the movable lid member may be closed against the elastic force of the elastic strip to assure that the elastically deformable portion is elastically deformed again and the locking projection comes again in engagement with the por-

tion opposed thereto, i.e., at least one of the front edge of the stationary lid member and the front edge of the movable lid member opposed to each other so as to hold the movable lid member closed.

[0008] As the movable lid member is closed, the elastic strip is curved preferably generally in a U-shape or Ω -shape and charged with an elastic energy within the space defined between the stationary lid member and the movable lid member so that the movable lid member can be automatically opened even if the elastic strip itself is made having a relatively low elasticity such as rubber. The effectiveness of the elastic strip to open the movable lid member is made further reliable by, in addition of said energy charging, placement of a working point at which the elastic strip acts upon the movable lid member at a predetermined distance from the hinged portion of the movable lid member toward the front edge of this lid member as adopted in the embodiment of the invention. The elastic strip is curved in a relatively natural shape within the space, so there is no apprehension that the elastic strip might become fatigued due to relatively high frequency at which the movable lid member is opened and closed or closure of the movable lid member lasting for a relatively long period might generate a permanent distortion in the elastic strip and thereby reduce its elastic force. Such advantage is made further effective by defining between the stationary lid member and the movable lid member a recess deeper than the space adapted to receive the elastic strip in its naturally curved state. In addition, according to the embodiment of the invention, the elastic strip can be effectively fixed by fixing one end alone to the movable lid member or the stationary lid member, preferably to the movable lid member, so mounting of the elastic strip is facilitated.

[0009] While engagement between the stationary lid member and the movable lid member by means of the locking projection is easily released under the elastic deformation of at least one of the depressor means or the region in the proximity thereof by depressing the depressor means by a user's finger, such engagement between the stationary lid member and the movable lid member can be more easily released by depressing the depressor means by a user's finger by forming the movable lid member from material which is elastically deformed more easily than the material for the stationary lid member and/or forming the depressor means and at least the region surrounding it so as to be most easily deformed.

[0010] The other advantages will be apparent from the following description.

[0011] The invention will now be described by way of example with reference to some of the accompanying drawings, in which:-

Fig. 1 is a perspective view showing a container for wetted tissues according to an embodiment of the invention with its lid being separated from its body and a movable lid member forming a part of the lid being opened;

Fig. 2 is a perspective view of the container shown by Fig. 1 with its lid fitted on its body;

Fig. 3A is a fragmentary sectional view of the container showing a hinged portion by which the movable lid member is rotatably connected to a stationary lid member also forming a part of the lid, as well as a manner in which an elastic strip is fixed to the stationary lid member;

Fig. 3B is a sectional side view taken along a line A-A in Fig. 2, showing a mechanism for locking the movable lid member and stationary lid member together with the members in the interlocked position; Fig. 3C is a view similar to Fig. 3B, showing the mechanism with the movable and stationary lid members having been unlocked from each other;

Figs. 4A through 4F are perspective views exemplarily showing various configurations of the elastic strip;

Fig. 5 is a perspective view of the lid, showing an alternative embodiment of the hinged portion by which the movable lid member is rotatably connected to the stationary lid member;

Fig. 6 is a perspective view showing an alternative embodiment of the elastic strip;

Fig. 7 is a sectional side view showing the elastic strip curved after the movable lid member has been closed;

Fig. 8 is a plan view corresponding to Fig. 6;

Fig. 9A is a perspective view showing an alternative manner in which the elastic strip is fixed to the stationary lid member;

Fig. 9B is a sectional side view showing the elastic strip of Fig. 9A with it fixed to the stationary lid member;

Fig. 10A is a perspective view exemplarily showing a depressor means used to lock or unlock the movable lid member relative to the stationary lid member;

Fig. 10B is a sectional view taken along a line B-B in Fig. 10A;

Fig. 10C is a perspective view of a depressor member;

Fig. 11A is a perspective view showing an alternative embodiment of the depressor means;

Fig. 11B is a sectional view taken along a line C-C in Fig. 11A, showing a manner in which the movable lid member is opened by operating the depressor member;

Fig. 11C is a perspective view showing an inside of the depressor member;

Figs. 12A through 12G are sectional views showing various sectional configurations possibly presented by an opening of the stationary lid member through which the wetted tissues are successively picked out from a stack thereof packed in the container, which are not part of the invention as claimed;

Figs. 13A through 13H are plan views showing various plane configurations possibly presented by the

opening, which are not part of the invention as claimed;

Fig. 14 is a perspective view of a container in accordance with an alternative embodiment of the invention with its lid separated from its body and the movable lid member forming a part of the lid being opened;

Fig. 15 is a plan view showing the inside of the movable lid member in the embodiment shown by Fig. 14;

Fig. 16 is a plan view showing an upper surface of the stationary lid member in the embodiment shown by Fig. 14;

Fig. 17 is a plan view showing a portion of the elastic strip fixed to the stationary lid member in the embodiment shown by Fig. 14;

Fig. 18 is a sectional view of the portion shown by Fig. 17;

Fig. 19 is a sectional view showing, in an enlarged scale, an alternative embodiment of the mechanism for locking the movable lid member and the stationary lid member together;

Fig. 20 is a sectional view showing the elastic strip curved after the movable lid member has been closed in the embodiment shown by Fig. 14;

Fig. 21A is a sectional view showing a manner in which the wetted tissues are folded and stacked within a sealed bag, which is not part of the invention as claimed; and

Fig. 21B is a schematic diagram illustrating an alternative manner in which the wetted tissues are folded and stacked, which is not part of the invention as claimed.

[0012] Referring to Figs. 1 through 3, a container 10 comprises a container body 11, an upper opening 11a and a flange 12 extending along an outer peripheral edge of the opening 11a, and a lid 20 covering the opening 11a. The body 11 is made from a suitable synthetic resin material in a generally rectangular parallelepiped and contains therein a stack of wetted tissues as will be described later. The lid 20 comprises a stationary lid member 21 and a movable lid member 23 both made of a suitable synthetic resin material.

[0013] The stationary lid member 21 includes an outer locking periphery 34 provided with circumferentially extending projections 34b, 54(Fig. 3B) adapted to be disengageably engaged with the flange 12, a generally U-shaped first upper surface region 33 whose outer border extends along its majority just above the outer locking periphery 34, a second upper surface region 27 defined by a generally U-shaped inner edge 28 of the first upper surface region 33 as well as a stepped surface lower than the region 33 and placed aside toward a rear end 34a of the lid 20, an annular wall 29 formed substantially in a central region of the surface region 27 and an opening 24 defined substantially in a central region of the wall 29 by a rising peripheral edge 24a which is substantially

concentric with the annular wall 29.

[0014] The movable lid member 23 has its rear edge integrally connected by a hinged portion 22 to the rear edge 34a of the stationary member 21, a peripheral edge 23a projecting toward the second upper surface region 27 so as to be engaged with the peripheral edge 28 of the stationary lid member 21, an annular wall 35 formed on an inner surface of the lid member 23 so as to be tightly engaged with the annular wall 29 of the stationary lid member 21, and a locking projection 32 formed on a free end of the movable lid member 23 as will be described later in more detail.

[0015] The stationary lid member 31 is molded from a suitable soft polypropylene material and has a module of bending elasticity preferably of 5,000 to 11,000kg/cm², more preferably of 5,200kg/cm² as determined according to JIS K6758. Suitable materials include, for example, MD 770H supplied from Showa Denko K.K.. The movable lid member 23 is molded from a relatively hard polypropylene material and has a module of bending elasticity preferably of 12,000 to 18,000kg/cm², more preferably of 15,300kg/cm² as determined according to JIS K6758. Suitable materials should have Melt Flow Rate of 56g/10min as determined according to JIS K6758 and include, for example, J-6071 HP supplied from Idemitsu Sekiyukagaku K.K. The stationary lid member 21 as well as the movable lid member 23 may be molded not only from a polypropylene material but also from other suitable materials such as polyethylene, polystyrene, acrylonitril butadiene styrene, polyester, polyvinyl chloride, polycarbonate or elastomer. Obviously, the body 11 may be also molded from any one of the previously mentioned materials.

[0016] A pair of elastic strips 50 extend across the rear edges of the stationary lid member 21 and the movable lid member 23 and each of these elastic strips 50 is fixed at its one end by a caulking means 51 to the second upper surface region 27 with a free end of the elastic strips 50 being pressed against the inner surface of the movable lid member 23. Accordingly, the movable lid member 23 is normally biased by the elastic strip 50 to be opened. The caulking means 51 comprises, as will be understood from Fig. 3A, a projection 51a formed on the second upper surface region 27, extending through an opening 50a formed in one end of each elastic strip 50 and having its upper end deformed under heating treatment into a screw-head shape. It should be understood that the elastic strip 50 may have its fixed end placed on the inner surface of the movable lid member 23 rather than on the inner surface of the stationary lid member 21 and the number of the elastic strips is not limited to one pair so far as the number is plural.

[0017] The elastic strip 50 may be molded from rubber or synthetic resin materials having a rubber elasticity such as silicone rubber, chloroprene rubber, butadiene rubber, urethane rubber, ethylene-propylene copolymer or natural rubber, preferably having a hardness of 40° to 70° as determined by the physical test of vulcanizate

according to JIS K6301-1975 and a thickness of 1.5 to 3.0mm. Such elastic strip 50 may be obtained by compression molding, extrusion or injection molding and may have its front and/or rear surface embossed, if desired. The elastic strip 50 may be flat and have a rectangular cross section as shown by Fig. 4A; longitudinally curved and have a cross-section as shown by Figs. 4B and 4C; transversely curved and have a rectangular cross-section as shown by Fig. 4D; have a semicircular cross-section as shown by Fig. 4E; or have a circular cross-section as shown by Fig. 4F.

[0018] Referring again to Figs. 1, 2, 3B and 3C, the first upper surface region 33 of the stationary lid member 21 is provided with a depressor means 52 having a thin-walled portion 53 so that the locking projection 32 on the movable lid member 23 is opposed to this depressor means 52 as the movable lid member 23 is closed, and the first peripheral edge 28 of the stationary lid member 21 is provided at a position opposed to the locking projection 23 with a locking projection 52a adapted to be disengageably engaged with the locking projection 32. As the movable lid member 23 held by a user's fingers is pivotably rotated down about the hinged portion 22 onto the second upper surface region 27 against the elasticity of the elastic strips 50, the locking projection 32 strikes the locking projection 52a from above, elastically deforms the depressor means 52 and its proximity until the locking projection 32 can clear the locking projection 52a downward, whereupon the elastically deformed portion is restored to its original state and simultaneously the locking projection 32 is snap-engaged with the locking projection 52a. When, from such engaged state, a user's finger depresses the depressor means 52 from above, the depressor means 52 and its proximity bordered by the thin-walled portion 53 is elastically deformed so as to release the mutual engagement of the locking projections 32, 52a.

[0019] As will be understood from Fig. 1, during closure of the movable lid member 23, the elastic strips 50 are maintained to be curved generally in U-shapes, respectively, against their own elasticity within a space defined between the respective inner surfaces of the second upper surface region 27 and the movable lid member 23, i.e., these elastic strips 50 are charged with a sufficient elastic energy to automatically open the movable lid member 23 under the elasticity of the elastic strips 50 as soon as the locking projection 32 is disengaged from the locking projection 52a in the manner as has previously been described.

[0020] Fig. 5 shows a case in which a hinged portion is provided separately of the stationary lid member 21 as well as the movable lid member 23. According to this embodiment, the movable lid member 23 is molded independently of the stationary lid member 21 so as to be hinged to the stationary lid member 21 by means of a pivot pin 37. The separate provision of these lid members in this manner is advantageous in that not only the lid 23 can be easily folded but also the hinged portion

will be relatively durable.

[0021] Referring to Figs. 6 through 8, an alternative embodiment of the elastic strip 50 is shown, in which a recess 27a is formed between the rear edge of the first upper surface region 33 and the rear edge of the second upper surface region 27 and the inner surface of the movable lid member 23 is formed with a generally U-shaped retainer 23b. The inner surface of the movable lid member 23 defined by the retainer 23b is defined by a radius of curvature selected to provide a gentle curvature and the respective free ends of the elastic strips are pressed against this curved surface. The curved surface defined by such radius provides a space within which the elastic strips 50 can be smoothly curved generally in U-shapes and charged with the desired elastic energy as the movable lid member 23 is closed.

[0022] Fig. 9 shows yet another embodiment of the elastic strip 50, in which the second upper surface region 27 of the stationary lid member 21 is formed with a covering strip 65 defining a channel between the covering plate 65 and the second upper surface region 27 so that one end of the elastic strip 50 is fixedly inserted into the channel. Alternatively, the elastic strip 50 may be insertion-molded simultaneously with molding of the stationary lid member 21 so that the elastic strip 50 may be fixed in the channel.

[0023] Fig. 10 shows an alternative embodiment of the depressor means 52 which may be operated by a user's finger to open or close the movable lid member 23, in which the depressor member 52A, is formed from an elastically deformable synthetic resin material separately of the stationary lid member 21 while the movable lid member 23 partially extends outward beyond the first peripheral edge 28 of the stationary lid member 21 to an outer side surface of the stationary lid member 21. This extension and the depressor member 52A are received in a recess 21b formed to extend from the first upper surface region 33 to an outer surface of the outer locking periphery 34. The depressor member 52A includes a locking projection 55 destined to be engaged with a locking projection 32 of the movable lid member 23 and a leg portion 56 undetachably fixed by a retainer projection 21a formed on the outer surface of the stationary lid member 21. This depressor member 52A is elastically deformed as it is depressed by a user's finger and thereupon the engagement is released.

[0024] Fig. 11 shows still another embodiment of the depressor means 52 which may be operated by a user's finger to open or close the movable lid member 23, in which a depressor member 52B is molded from a suitable synthetic resin material separately of the stationary lid member 21 and received in the recess 21c formed to extend from the first upper surface region 33 to the outer surface of the outer locking periphery 34. The depressor member 52B includes a locking projection 57 destined to be engaged with the locking projection 32, a leg portion 58 bearing against the recessed surface 21c, a bearing 59 supported by a pivot pin 61 extending across

the recess 21c and leaf springs 62 pressed against the inner surface of the recess 21c.

[0025] As the movable lid member 23 is closed by a user's depressing operation, the depressor member 52B is counterclockwise rotated, causing the locking projection 32 to clear the locking projection 57 and then to engage the latter from below, whereupon the depressor member 52B is forcibly pivoted counterclockwise and the leaf springs 62 are depressed with the leg portion 58 being slightly lifted off from the recessed surface 21c. The depressor member 52B is clockwise pivoted as it is depressed by a user's finger against the elastic force of the leaf springs 62, and consequently said engagement is released. As will be apparent from this embodiment, the herein used term "elastic deformation of the depressor means" should be understood to include, in addition to elastic deformation occurring in the depressor means or depressor member itself, change in its posture under the effect of the leaf springs operatively associated with the depressor means or depressor member.

[0026] Fig. 12 shows various sectional configurations possibly presented by the opening 24 through which the wetted tissues will be successively picked out. Referring to Fig. 12A, the peripheral edge 24a defining the opening 24 has its inner surface 25 which presents a circular arc as viewed in its sectional view and its radius is at least of 1mm, preferably of 2 to 10mm or may gradually vary. Such sectional configuration allows the wetted tissues to be smoothly picked out through the opening 24 along the inner peripheral surface 25 thereof. Openings 24 having other sectional configurations are shown shown by Figs. 12B through 12G. For example, the inner peripheral surface 25a of the opening 24 shown by Fig. 12G presents a flat slope instead of the circular arc as viewed in its sectional view.

[0027] Fig. 13 shows various plane configurations possibly presented by the opening 24. While the specific embodiment shown by Fig. 1 adopts the opening 24 having an elliptical plane configuration, those shown by Figs. 13A through 13H may be also employed. These configurations are characterized by a plurality of tongue portions 26 extend into the opening 24 and the peripheral edge 24a of the opening 24 is partially formed by respective edges 26a of these tongue portions 26.

[0028] Figs. 14 through 20 show a particularly preferred embodiment of the invention. It should be understood that the parts similar to those in the embodiment shown by Figs. 1 through 11 are designated by similar reference numerals and description thereof will be simplified in order to minimize repetition of description.

[0029] According to this embodiment, the stationary lid member 21 and the movable lid member 23 are molded separately of each other. The stationary lid member 21 includes the first upper surface region 33 the outer border of which extends above the entire outer locking periphery 34 of the lid 21, the second upper surface region 27 and a third upper surface region 27a defined by

a peripheral edge 86 between the second upper surface region 27 and the opening 24 at a level lower than the second upper surface region 27. The stationary lid member 21 further includes a first recess 75 formed in the second upper surface region 27 at a transverse middle of the stationary lid member 21 between the rear edge 34a and a portion of the peripheral edge 86 opposed to the rear edge 34a, a second recess 78 which is larger than the recess 75 and defined between this recess 75 and the peripheral edge 86, a locking projection 79 formed on the peripheral edge 28 at a location opposed to the locking projection 32 and destined to be engaged with the locking projection 32, and a depressor means 80 provided in the form of a recess in the first upper surface region 33 adjacent the locking projection 79. A portion of the peripheral edge 28 in the proximity of the locking projection 79 as well as the depressor means 80 are formed to be thinner than the rest of the peripheral edge 28 and the first upper surface region 33 so that their elastic deformation may be facilitated. The movable lid member 23 additionally includes a peripheral edge 23a projecting toward the second upper surface region 27 so as to be closely engaged with the entire peripheral edge 28, an annular wall 85 projecting from the inner surface of the movable lid member 23 so as to be closely engaged with the peripheral edge 86, and a retainer means 76 serving to retain one end of the elastic strip 50. A region 32a surrounding the locking projection 32 is formed to be thinner than the peripheral edge 23a in order to facilitate a desired elastic deformation. The movable lid member 23 constructed as described above is hinged to the stationary lid member 21 by a means of pins 77a formed by projections 77 on the rear edge of the movable lid member 23 rotatably supported by bearings 77b formed on the inner edge of the first upper surface region 33 adjacent the rear edge 34a of the stationary lid member 21.

[0030] As will be apparent from Fig. 17 the retainer means 76 is located at a predetermined distance from the rear edge toward the front edge of the movable lid member 23 and comprises a covering plate 76a provided at a predetermined distance from the rear edge toward the annular wall 85 of the movable lid member 23, a projection 76b provided on the inner surface of the covering plate 76a along its transversely middle line, opposite side walls 76c extending longitudinally of the movable lid member 23, a cylindrical projection 81 extending from the inner surface of the movable lid member 23 and fitting on the projection 76b so as to define a retaining pin, and opposite side walls 82 projecting from the inner surface of the movable lid member 23 so as to be closely engaged with respective inner surfaces of the opposite side walls 76c. The elastic strip 50 has its one end inserted into the retainer means 76 with an opening 50a formed in the one end fitting on the cylindrical projection 81 and its free end 50b inserted into the first recess 75 of the stationary lid member 21. The elastic strip 50 is dimensioned so that an intermediate por-

tion 50c extending between the opening 50a and the free end 50b may be slightly curved in such inserted state (Fig. 14) and, after the movable lid member 23 has been closed, the elastic strip 50 is charged with an elastic energy by being curved in generally Ω -shape away from the hinged portion between the stationary lid member 21 and the rear edge of the movable lid member 23 with the intermediate portion 50c being smoothly received by the second recess 78.

[0031] Referring to Figs. 14 and 19, the locking projection 32 of the movable lid member 23 clears the locking projection 79 of the stationary lid member 21 and engages the latter from below as the movable lid member 23 is closed by a user's finger, during which the region in the proximity of the locking projection 32 as well as the region in the proximity of the locking projection 79 are elastically deformed to facilitate the locking projection 32 to clear the locking projection 79 and, after such clearing has been completed, those regions elastically restore their original states so as to make the engagement reliable. Upon depression of the depressor means 80 by a user's finger, the locking projection 79 clears the locking projection 32 from above and thereby the engagement is released. Clearing for such release is also facilitated by the elastic deformation.

[0032] Referring to Fig. 19, engagement as well as disengagement of the locking projections 32, 79 can be facilitated by dimensioning the locking projection 79 to have a height of approximately 1.0mm and configuring their surfaces along which they are slidably moved to present circular arcs or slopes. Engagement as well as disengagement assisted with elastic deformation and restoration occurring in the intermediate portion 80a extending between the locking projection 79 and the depressor means 80 can be further easily and reliably achieved by forming the intermediate portion 80a to present a curvature defined by a radius of approximately 1.2mm. Also in the embodiment shown by Fig. 14, those two locking projections can be smoothly engaged with and disengaged from each other, since the stationary lid member 21 is molded from the synthetic resin material which is elastically deformed more easily than the synthetic resin material from which the movable lid member 23 is molded.

[0033] Referring to Fig. 21A, a stack of wetted tissues 41 is packed in a sealed bag 40 made of a soft synthetic resin sheet. Each of wetted tissues 41 is folded along a folding line 42 generally in two. Each of wetted tissues 41 thus folded in two has its lower half 41b inserted between an upper half 41a of the underlying one of wetted tissues 41 and an upper half 41a of the next underlying one of wetted tissues 41. In this manner, the lower half 41b of the sheet picked out by a user from the stack of wetted tissues 41 pulls up the upper half 41a of the underlying one of wetted tissues 41. The wetted tissues 41 may be folded and stacked in any manner so far as they can be picked out one by one, for example, in a manner as shown by Fig. 21B. The sealed bag 40 is

formed in its top with an opening 40a through which the wetted tissues are picked out one by one and this opening 40a is sealed with a cover sheet 45 destined to be separated from the bag 40 in actual use thereof. Wetted tissues are made of fibrous materials such as nonwoven fabric, paper or gauze or foamed sheet and immersed with skin lotion, milky lotion and/or the other humectant containing germicide, sterilizer, detergent or the like.

[0034] Wetted tissues 41 thus stacked within the sealed bag 40 are packed into the container body 11 with the opening 40a of the bag 40 being opened by separating the cover sheet 45 so that one end of the uppermost sheet of wetted tissues 41 can be picked out through the opening 24 of the stationary lid member 21. With the movable lid member 23 being closed, the one end of the uppermost one of wetted tissues 41 is exposed out of the opening 24 but there is no apprehension that the uppermost one of wetted tissues 41 might be contaminated or dried from its exposed end since, for example, in the container 10 according to the embodiment shown by Fig. 1, such end of the uppermost one of wetted tissues 41 is protected within a space defined by the annular walls 29, 35 fitting on each other.

Claims

1. A container for wetted tissues comprising:

a container body (11) having a first opening (11a) on an upper side thereof through which a stack of wetted tissues (41) is packed therein; a stationary lid member (21) including an outer periphery (34) fitted on said first opening (11a), a first upper surface region (33) defined by said outer periphery (34) and a first peripheral edge (28), a second upper surface region (27) defined by said first peripheral edge (28), and a second opening (24) formed in said second upper surface region (27) substantially at a central zone thereof through which wetted tissues (41) are picked out; a movable lid member (23) including a second peripheral edge (23a) projecting from an inner surface thereof so as to fit on said stationary lid member (21) thereby to define a space between said second upper surface region (27) of said stationary lid member (21) and said inner surface of said movable lid member (23), having spaced apart front and rear edges and being hinged to said stationary lid member (21); said container body (11), said stationary lid member (21) and said movable lid member (23) each being molded from a suitable synthetic resin material; and

characterized in that:

said outer periphery (34) of said stationary lid member (21) is a locking periphery adapted for detachably and sealably fitting on said first opening (11a);

said first peripheral edge (28) has spaced apart front, rear (34a) and side edges and said movable lid member (23) is hinged to said stationary lid member (21) adjacent said rear edge (34a), said second peripheral edge (23a) being adapted to fit on said first peripheral edge (28);

an elastic strip (50) made of a nonmetallic material normally biasing said movable lid member (23) to be opened extends across said rear edge (34a) of said stationary and movable lid members (21,23) and is held between said second upper surface region (27) and said inner surface of said movable lid member (23) wherein said elastic strip (50) is at least partially curved and charged with an elastic energy within said space as said movable lid member (23) is closed;

a locking projection (32) is provided on at least one of said front edges of said stationary and movable lid members (21,23) opposed to each other upon closure of said movable lid member (23) so that they can be detachably engaged with each other; and

said first upper surface region (33) is provided adjacent said locking projection (32) with an elastically deformable depressor means (52) serving to release said engagement of said locking projection (32).

2. A container according to Claim 1, wherein said stationary lid member (21) is made of a material having an elastic deformability higher than the material for said movable lid member (23).
3. A container according to Claim 1 or 2, wherein at least one of said depressor means (52) and a region in the proximity of said depressor means (52) are formed so as to be elastically deformed more easily than the rest of said stationary lid member (21).
4. A container according to Claim 3, wherein said portions formed to be elastically deformed more easily than the rest is formed to be thinner than at least the rest of said stationary lid member (21).
5. A container according to Claim 1, 2, 3 or 4, wherein said elastic strip (50) has an end fixed to one of said stationary lid member (21) and movable lid member (23) and said end is at a predetermined distance from said hinged portion toward said front edge of said lid member (21,23) to which said end is fixed.
6. A container according to Claim 5, wherein said fixed end of said elastic strip (50) is fixed by a retainer

means comprising a covering plate (65) provided integrally with said lid member (21 or 23) so as to cover said fixed end.

7. A container according to claim 5, wherein a projection (51a) is provided on said lid member (21 or 23) to which said end is fixed, and an opening (50a) is formed in said fixed end so as to receive said projection (51a).
8. A container according to Claim 5, 6 or 7, wherein said elastic strip (50) is formed to be elongate and having said fixed end and a free end longitudinally opposite to each other so that said fixed end is fixed to an inner surface of said movable lid member (23) while said free end bears against said second upper surface region (27) without being fixed thereto.
9. A container according to Claim 8, wherein said second upper surface region (27) is provided on a position at which said free end of said elastic strip (50) bears against said second upper surface region (27) with a first recess (23b) serving to receive and support said free end and between said first recess (23b) and said second opening (24) with a second recess (27a) serving to receive a longitudinally intermediate curved portion of said elastic strip (50) as said movable lid member (23) is closed.
10. A container according to any preceding Claim, wherein said second upper surface region (27) is lower than said first upper surface region and formed substantially in a central zone thereof with a third upper surface region defined by a third peripheral edge (29), said third upper surface region being lower than said second upper surface region (27), and said third upper surface region is provided substantially in a central zone thereof with said second opening (24).
11. A container according to Claim 10, wherein said movable lid member (23) is formed on an inner surface thereof with an annular wall (35) adapted to fit on said third peripheral edge (29).
12. A container according to any preceding Claim, wherein said movable lid member (23) is provided on the front edge thereof with said locking projection (32) as a first locking projection (32) while said stationary lid member (21) is formed on the front edge thereof with a second locking projection (52a) adapted to be disengaged under said elastic deformation.
13. A container according to Claim 12, wherein said depressor means (52) is molded as a depressor member (52A) separately of said stationary lid member (21) and said depressor member (52A) is supported

by said stationary lid member (21) and formed on a free end thereof with said second locking projection (55).

14. A container according to any preceding Claim, wherein said elastic strip (50) is selectively made from any rubber or synthetic resin material.

Patentanaprüche

1. Behälter für befeuchtete Tücher, umfassend:

einen Behälterrumpf (11) mit einer ersten Öffnung (11a) auf seiner Oberseite, durch die ein Stapel befeuchteter Tücher (41) in ihn gepackt wird;
ein stationäres Deckelement (21) mit einer Außenperipherie (34), die auf der genannten ersten Öffnung (11a) angebracht ist, einem ersten oberen Flächenbereich (33), der von der genannten Außenperipherie (34) und einer ersten Umfangskante (28) definiert wird, einem zweiten oberen Flächenbereich (27), der von der genannten ersten Umfangskante (28) definiert wird, und einer zweiten Öffnung (24), die in dem genannten zweiten oberen Flächenbereich (27) im wesentlichen in einer zentralen Zone davon ausgebildet ist, durch die befeuchtete Tücher (41) herausgenommen werden;
ein bewegliches Deckelement (23) mit einer zweiten Umfangskante (23a), die so von seiner Innenfläche vorsteht, daß sie auf das genannte stationäre Deckelement (21) paßt, um so einen Raum zwischen dem genannten oberen Flächenbereich (27) des genannten stationären Deckelementes (21) und der genannten Innenfläche des genannten beweglichen Deckelementes (23) zu definieren, mit voneinander beabstandeten vorderen und hinteren Kanten und klappbar mit dem genannten stationären Deckelement (21) verbunden;
wobei der genannte Behälterrumpf (11), das genannte stationäre Deckelement (21) und das genannte bewegliche Deckelement (23) jeweils aus einem geeigneten Kunstharzmaterial geformt sind; und

dadurch gekennzeichnet, daß:

die genannte Außenperipherie (34) des genannten stationären Deckelementes (21) eine Verschußperipherie ist, die für eine lösbare und verschleißbare Befestigung auf der genannten ersten Öffnung (11a) ausgestaltet ist; die genannte erste Umfangskante (28) voneinander beabstandete vordere, hintere (34a) und seitliche Kanten hat und das genannte beweg-

liche Deckelement (23) klappbar mit dem genannten stationären Deckelement (21) neben der genannten hinteren Kante (34a) verbunden ist, wobei die genannte zweite Umfangskante (23a) so ausgestaltet ist, daß sie auf die genannte erste Umfangskante (28) paßt; ein elastischer Streifen (50) aus einem nicht-metallischen Material, der normalerweise das genannte bewegliche Deckelement (23) zum Öffnen vorspannt, über die genannte hintere Kante (34a) des genannten stationären und beweglichen Deckelementes (21, 23) verläuft und zwischen dem genannten zweiten oberen Flächenbereich (27) und der genannten Innenfläche des genannten beweglichen Deckelementes (23) gehalten wird, wobei der genannte elastische Streifen (50) wenigstens teilweise gekrümmt und mit einer elastischen Energie innerhalb des genannten Raums geladen ist, wenn das genannte bewegliche Deckelement (23) geschlossen wird; ein Verschußvorsprung (32) an wenigstens einer der genannten vorderen Kanten des genannten stationären und beweglichen Deckelementes (21, 23) vorgesehen ist, die sich nach dem Schließen des genannten beweglichen Deckelementes (23) einander gegenüberüberliegen, so daß sie lösbar miteinander in Eingriff gebracht werden können; und der genannte erste obere Flächenbereich (33) neben dem genannten Verschußvorsprung (32) mit einem elastisch verformbaren Niederdruckmittel (52) versehen ist, das die Aufgabe hat, den genannten Eingriff des genannten Verschußvorsprungs (32) zu lösen.

2. Behälter nach Anspruch 1, bei dem das genannte stationäre Deckelement (21) aus einem Material mit einer elastischen Verformbarkeit besteht, die höher ist als bei dem Material des beweglichen Deckelementes (23).
3. Behälter nach Anspruch 1 oder 2, bei dem wenigstens das genannte Niederdruckmittel (52) oder ein Bereich in der Nähe des genannten Niederdruckmittels (52) so geformt ist, daß es/er leichter elastisch verformbar ist als der Rest des genannten stationären Deckelementes (21).
4. Behälter nach Anspruch 3, bei dem die genannten Abschnitte, die leichter elastisch verformbar sind als der Rest, so geformt sind, daß sie dünner sind als wenigstens der Rest des genannten stationären Deckelementes (21).
5. Behälter nach Anspruch 1, 2, 3 oder 4, bei dem ein Ende des genannten elastischen Streifens (50) am genannten stationären Deckelement (21) oder am

- beweglichen Deckelelement (23) befestigt ist und sich in einem vorbestimmten Abstand vom genannten Gelenkabschnitt in Richtung auf die genannte vordere Kante des genannten Deckelelementes (21, 23) befindet, an dem das genannte Ende befestigt ist.
6. Behälter nach Anspruch 5, bei dem das genannte befestigte Ende des genannten elastischen Streifens (50) mit einem Haltemittel befestigt ist, umfassend eine Abdeckplatte (65), die an das genannte Deckelelement (21 oder 23) so angeformt ist, daß sie das genannte befestigte Ende abdeckt.
7. Behälter nach Anspruch 5, bei dem ein Vorsprung (51a) an dem genannten Deckelelement (21 oder 23) vorgesehen ist, an dem das genannte Ende befestigt ist, und eine Öffnung (50a) in dem genannten befestigten Ende ausgebildet ist, um den genannten Vorsprung (51a) aufzunehmen.
8. Behälter nach Anspruch 5, 6 oder 7, bei dem der genannte elastische Streifen (50) länglich ausgebildet ist, wobei das genannte befestigte Ende und ein freies Ende einander der Länge nach gegenüberliegen, so daß das genannte befestigte Ende an einer Innenfläche des genannten beweglichen Deckelelementes (23) befestigt ist, während das genannte freie Ende an dem genannten zweiten oberen Flächenbereich (27) anliegt, ohne daran befestigt zu sein.
9. Behälter nach Anspruch 8, bei dem der genannte zweite obere Flächenbereich (27) in einer Position, in der das genannte freie Ende des genannten elastischen Streifens (50) an dem genannten zweiten oberen Flächenbereich (27) anliegt, mit einer ersten Ausnehmung (23b) versehen ist, die die Aufgabe hat, das genannte freie Ende aufzunehmen und zu tragen, und zwischen der genannten ersten Ausnehmung (23b) und der genannten zweiten Öffnung (24) mit einer zweiten Ausnehmung (27a) versehen ist, die die Aufgabe hat, einen der Länge nach gekrümmten Zwischenabschnitt des genannten elastischen Streifens (50) aufzunehmen, während das genannte bewegliche Deckelelement (23) geschlossen wird.
10. Behälter nach einem der vorherigen Ansprüche, bei dem der genannte zweite obere Flächenbereich (27) tiefer ist als der genannte erste obere Flächenbereich und im wesentlichen in seiner mittleren Zone mit einem dritten oberen Flächenbereich versehen ist, der von einer dritten Umfangskante (29) definiert wird, wobei der genannte dritte obere Flächenbereich tiefer ist als der genannte zweite obere Flächenbereich (27) und der genannte dritte obere Flächenbereich im wesentlichen in seiner mittleren Zone mit der genannten zweiten Öffnung (24) versehen ist.
11. Behälter nach Anspruch 10, bei dem das genannte bewegliche Deckelelement (23) auf seiner Innenfläche mit einer ringförmigen Wand (35) versehen ist, die so ausgestaltet ist, daß sie auf die genannte dritte Umfangskante (29) paßt.
12. Behälter nach einem der vorherigen Ansprüche, bei dem das genannte bewegliche Deckelelement (23) an seiner vorderen Kante mit dem genannten Verschlüßvorsprung (32) als ein erster Verschlüßvorsprung (32) versehen ist, während das genannte stationäre Deckelelement (21) an seiner vorderen Kante mit einem zweiten Verschlüßvorsprung (52a) versehen ist, der so ausgestaltet ist, daß er unter der genannten elastischen Verformung gelöst wird.
13. Behälter nach Anspruch 12, bei dem das genannte Niederdrückmittel (52) als ein Niederdrückelement (52A) separat von dem genannten stationären Deckelelement (21) geformt und das genannte Niederdrückelement (52A) von dem genannten stationären Deckelelement (21) getragen wird und an seinem freien Ende mit dem genannten zweiten Verschlüßvorsprung (55) versehen ist.
14. Behälter nach einem der vorherigen Ansprüche, bei dem der genannte elastische Streifen (50) selektiv aus einem beliebigen Gummi- oder Kunstharzmaterial hergestellt wird.

de façon à s'adapter sur ledit élément de couvercle stationnaire (21) afin de délimiter un espace entre ladite seconde région de surface supérieure (27) dudit élément de couvercle stationnaire (21) et ladite surface intérieure dudit élément de couvercle mobile (23), ayant des bords antérieur et postérieur mutuellement espacés et étant attachés de manière articulée audit élément de couvercle stationnaire (21); ledit corps de récipient (11), ledit élément de couvercle stationnaire (21) et ledit élément de couvercle mobile (23) étant chacun moulé à partir d'une résine synthétique appropriée; et

caractérisé en ce que :

ladite périphérie extérieure (34) dudit élément de couvercle stationnaire (21) est une périphérie verrouillable adaptée pour reposer de manière amovible et étanche sur ladite première ouverture (11a); ledit premier bord périphérique (28) est doté de bords antérieur, postérieur (34a) et latéraux mutuellement écartés et ledit élément de couvercle mobile (23) est articulé sur ledit élément de couvercle stationnaire (21) à proximité dudit bord postérieur (34a), ledit second bord périphérique (23a) étant adapté pour s'adapter sur ledit premier bord périphérique (28); une bande élastique (50) réalisée en un matériau non métallique qui rappelle normalement ledit élément de couvercle mobile (23) pour l'ouverture, s'étend en travers dudit bord postérieur (34a) desdits éléments de couvercle stationnaire et mobile (21,23) et est maintenu entre ladite seconde région de surface supérieure (27) et ladite surface intérieure dudit élément à couvercle mobile (23) de façon telle que ladite bande élastique (50) est au moins partiellement incurvée et chargée d'une énergie élastique au sein dudit espace lorsque ledit élément de couvercle mobile (23) est fermé; une saillie de verrouillage (32) est prévue sur au moins l'un desdits bords antérieurs desdits éléments de couvercle stationnaire et mobile (21,23) mutuellement opposés lors de la fermeture dudit élément de couvercle mobile (23) de façon à pouvoir être mutuellement mis en prise de façon détachable; et ladite première région de surface supérieure (33) est dotée, à proximité de ladite saillie de verrouillage (32), d'un moyen de dépression déformable élastiquement (52) qui sert à libérer ladite prise de ladite saillie de verrouillage (32).

2. Un récipient selon la Revendication 1, dans lequel ledit élément de couvercle stationnaire (21) est réalisé en un matériau ayant une déformabilité élasti-

que supérieure à celle du matériau qui constitue ledit élément de couvercle mobile (23).

3. Un récipient selon la Revendication 1 ou 2, dans lequel l'un au moins desdits moyens de dépression (52) et une région à proximité desdits moyens de dépression (52) sont formés d'une façon telle à être déformés élastiquement plus facilement que le reste dudit élément de couvercle stationnaire (21).
4. Un récipient selon la Revendication 3, dans lequel lesdites parties formées pour être déformées élastiquement plus facilement que le reste sont façonnées pour être plus minces qu'au moins le reste dudit élément de couvercle stationnaire (21).
5. Un récipient selon la Revendication 1, 2, 3 ou 4, dans lequel ladite bande élastique (50) a une extrémité fixée sur l'un desdits éléments de couvercle stationnaire (21) et élément de couvercle mobile (23) et ladite extrémité est à une distance prédéterminée de ladite partie articulée vers ledit bord antérieur dudit élément de couvercle (21,23) auquel ladite extrémité est fixée.
6. Un récipient selon la Revendication 5, dans lequel ladite extrémité fixe de ladite bande élastique (50) est fixée par des moyens de retenue qui englobent une plaque de couverture (65) prévue intégralement avec ledit élément de couvercle (21 ou 23) de manière à recouvrir ladite extrémité fixe.
7. Un récipient selon la Revendication 5, dans lequel une saillie (51a) est prévue sur ledit élément de couvercle (21 ou 23) auquel ladite extrémité est fixée, et une ouverture (50a) est formée dans ladite extrémité fixe de manière à recevoir ladite saillie (51a).
8. Un récipient selon la Revendication 5, 6 ou 7, dans lequel ladite bande élastique (50) est formée pour être allongée et ayant ladite extrémité fixe et une extrémité libre mutuellement opposées en sens longitudinal de façon telle que ladite extrémité fixe est fixée sur une surface intérieure dudit élément de couvercle mobile (23) tandis que ladite extrémité libre porte contre ladite seconde région de surface supérieure (27) sans être fixée sur celle-ci.
9. Un récipient selon la Revendication 8, dans lequel ladite seconde région de surface supérieure (27) est prévue sur une position à laquelle ladite extrémité libre de ladite bande élastique (50) porte contre ladite seconde région de surface supérieure (27) avec un premier évidement (23b) qui sert à recevoir et à supporter ladite extrémité libre et, entre ledit premier évidement (23b) et ladite seconde ouverture (24) avec un second évidement (27a) qui sert à recevoir une partie incurvée intermédiaire longitu-

dinale de ladite bande élastique (50) lorsque ledit élément de couvercle mobile (23) est fermé.

10. Un récipient selon l'une quelconque des revendications précédentes, dans lequel ladite seconde région de surface supérieure (27) est plus basse que ladite première région de surface supérieure et est formée sensiblement en une zone centrale de celle-ci avec une troisième région de surface supérieure délimitée par un troisième bord périphérique (29), ladite troisième région de surface supérieure étant plus basse que ladite seconde région de surface supérieure (27), et ladite troisième région de surface supérieure est dotée, sensiblement en une zone centrale de celle-ci, de ladite seconde ouverture (24). 5 10 15
11. Un récipient selon la Revendication 10, dans lequel ledit élément de couvercle mobile (23) est formé sur une surface intérieure de celui-ci avec une paroi annulaire (35) adaptée pour s'adapter sur ledit troisième bord périphérique (29). 20
12. Un récipient selon l'une quelconque des revendications précédentes, dans lequel ledit élément de couvercle mobile (23) est doté, sur son bord antérieur, de ladite saillie de verrouillage (32) comme première saillie de verrouillage (32) tandis que ledit élément de couvercle stationnaire (21) est formé sur son bord antérieur avec une seconde saillie de verrouillage (52a) adaptée pour être libérée sous ladite déformation élastique. 25 30
13. Un récipient selon la Revendication 12, dans lequel lesdits moyens de dépression (52) sont moulés comme un élément dépresseur (52A) séparément relativement audit élément de couvercle stationnaire (21) et ledit élément dépresseur (52A) est supporté par ledit élément de couvercle stationnaire (21) et formé sur une extrémité libre de celui-ci avec ladite seconde saillie de verrouillage (55). 35 40
14. Un récipient selon l'une quelconque des revendications précédentes, dans lequel ladite bande élastique (50) est réalisée sélectivement à partir d'un quelconque matériau en caoutchouc ou en résine synthétique. 45

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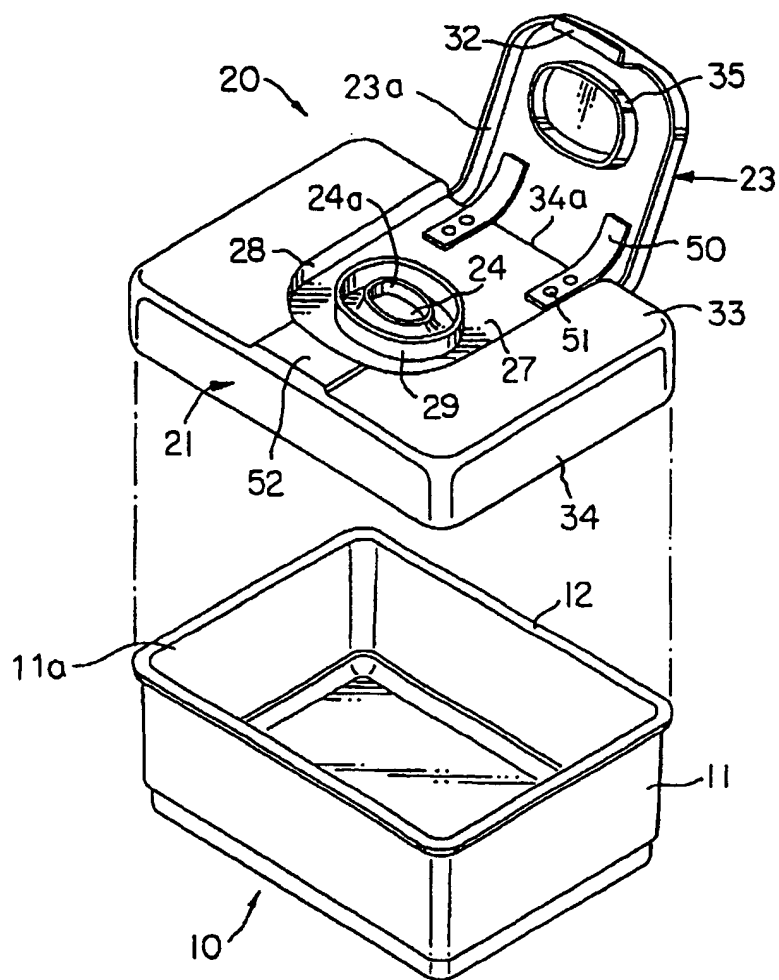


FIG. 1

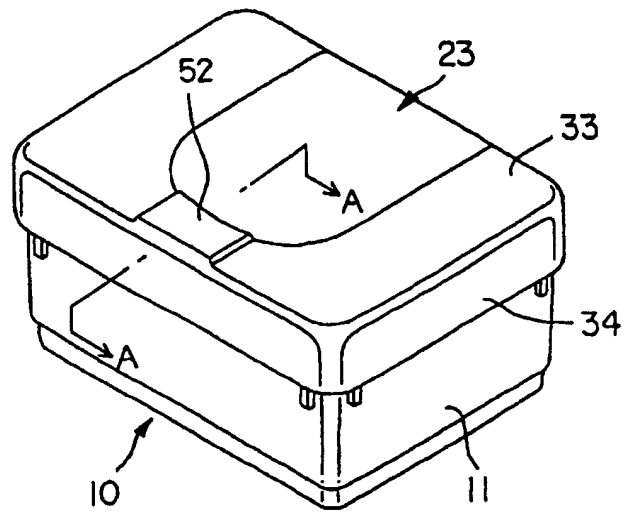


FIG.2

FIG.3A

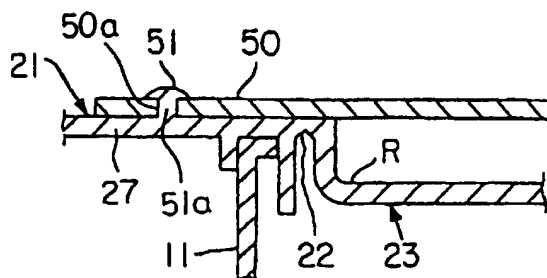


FIG.3B

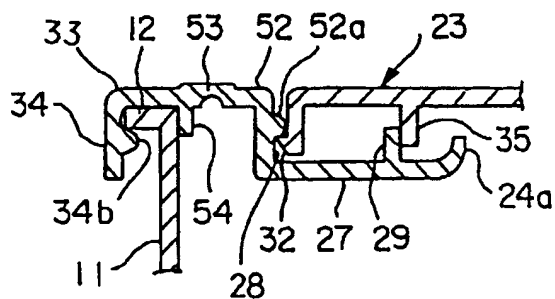


FIG.3C

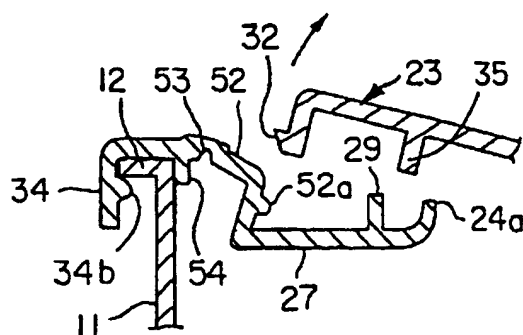


FIG.4A

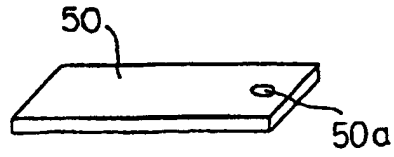


FIG.4B

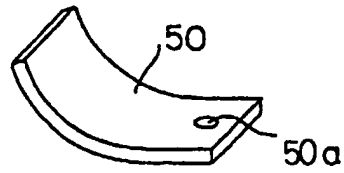


FIG.4C

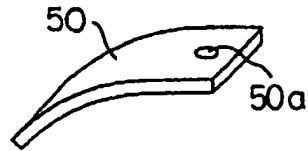


FIG.4D

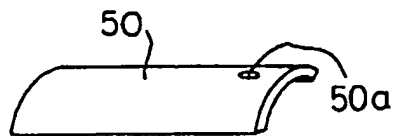


FIG.4E



FIG.4F

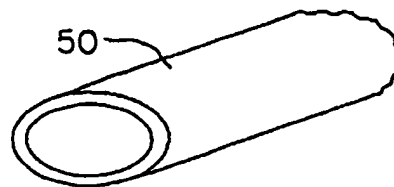


FIG.5

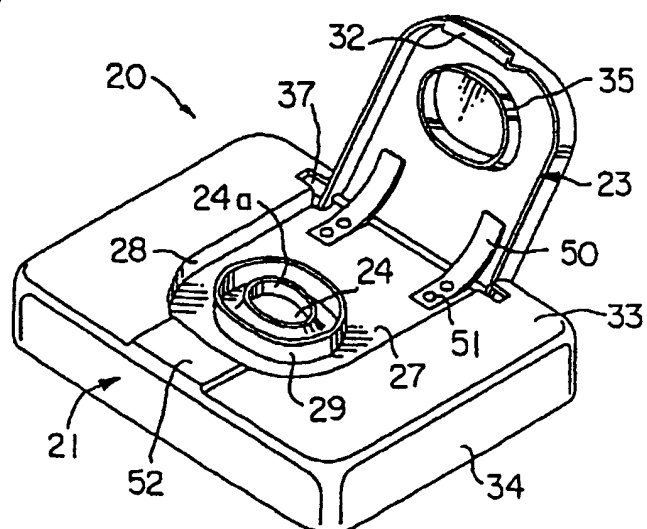


FIG.6

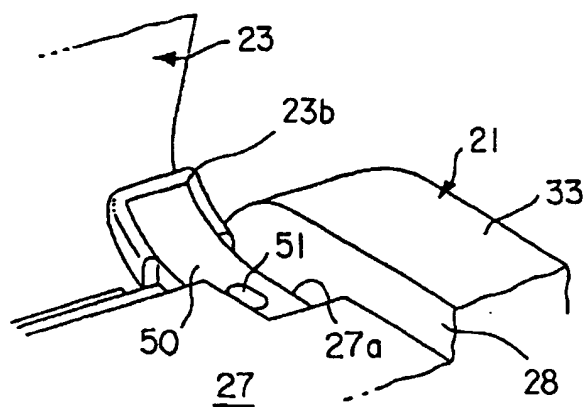


FIG.7

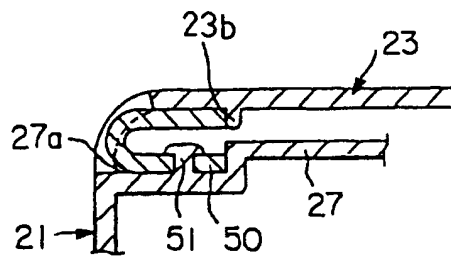
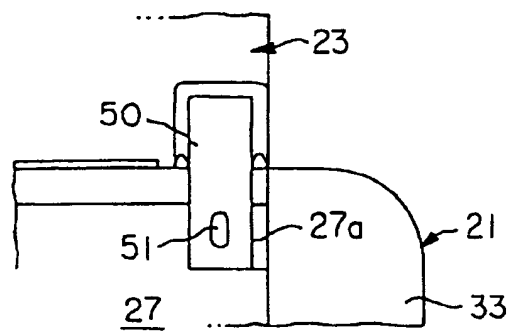


FIG.8



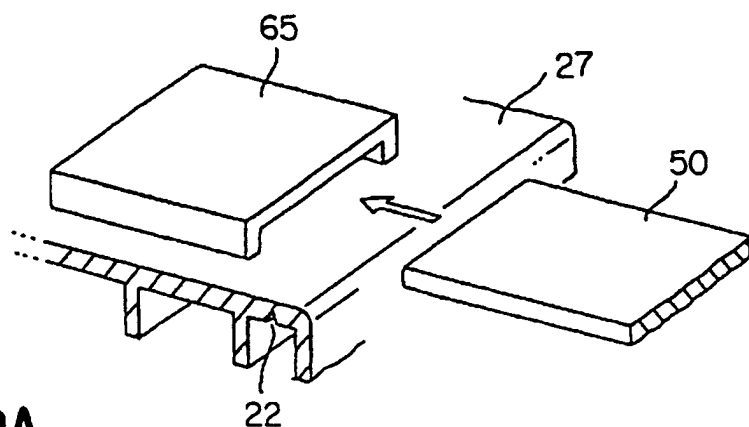


FIG. 9A

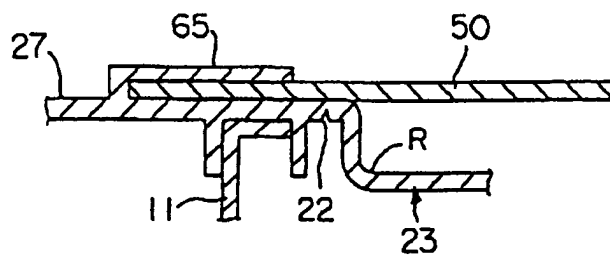


FIG. 9B

FIG.10A

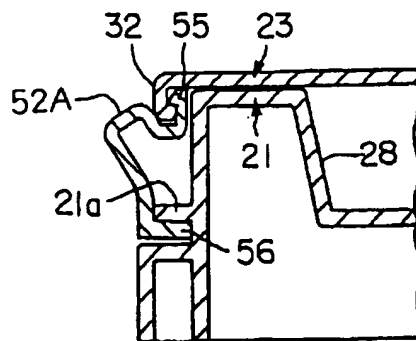
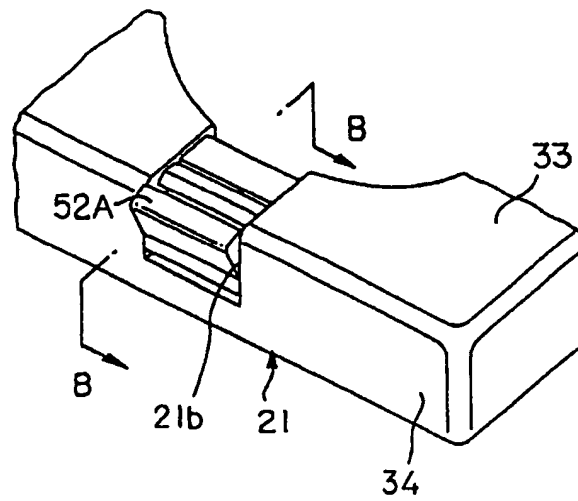


FIG.10B

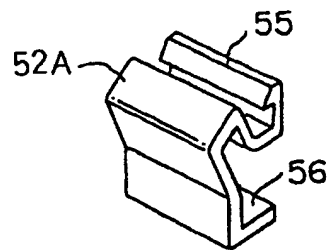


FIG.10C

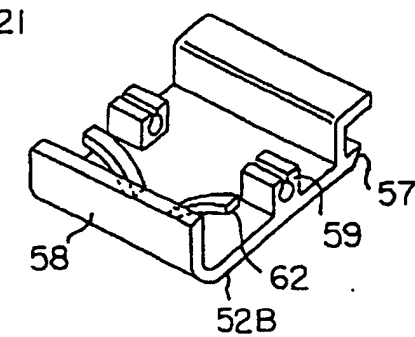
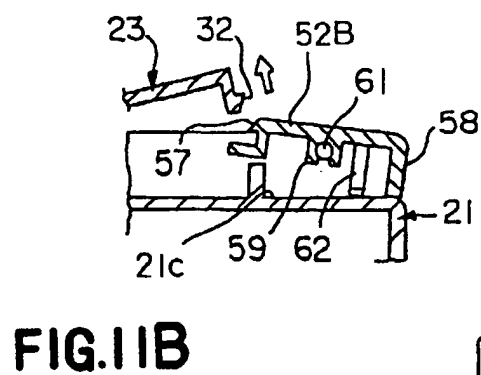
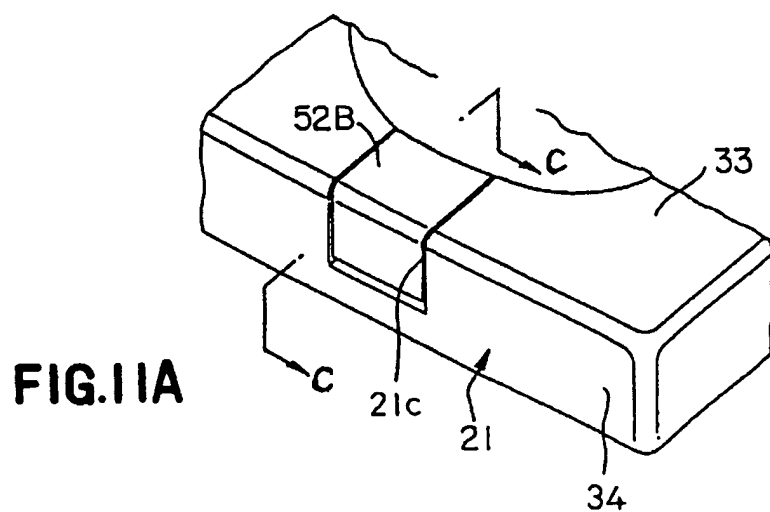


FIG.12A

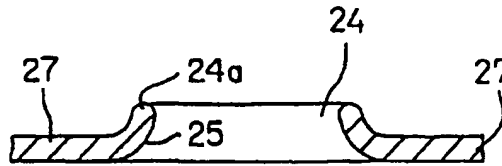


FIG.12B

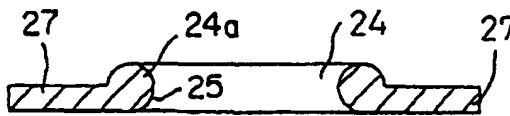


FIG.12C

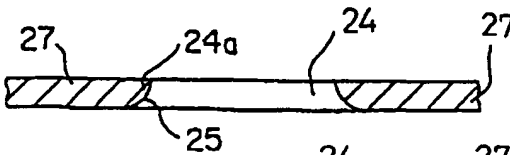


FIG.12D

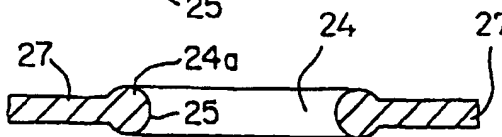


FIG.12E

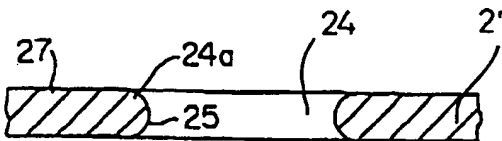


FIG.12F

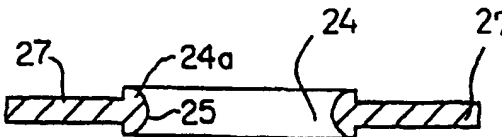
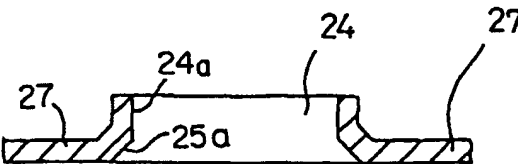


FIG.12G



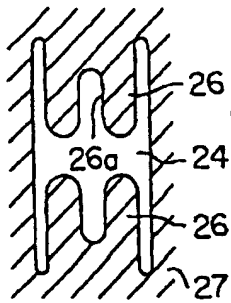


FIG. 13A

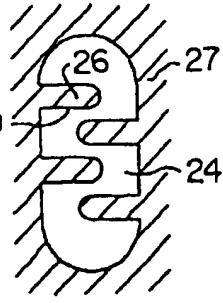


FIG. 13B

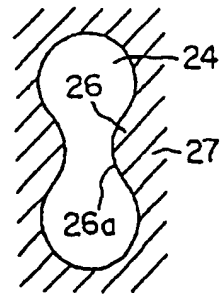


FIG. 13C

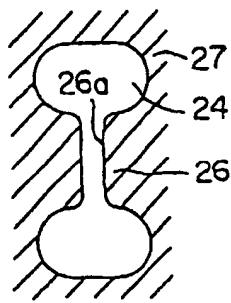


FIG. 13D

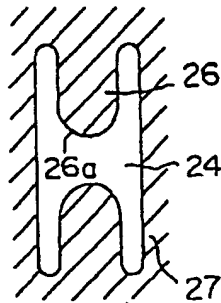


FIG. 13E

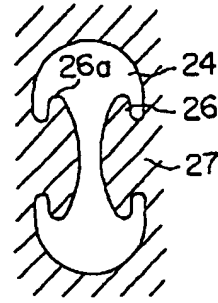


FIG. 13F

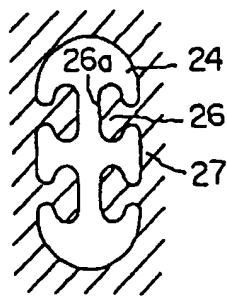


FIG. 13G

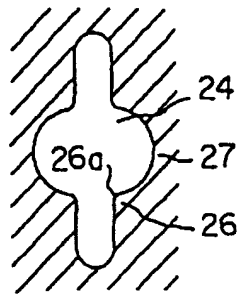


FIG. 13H

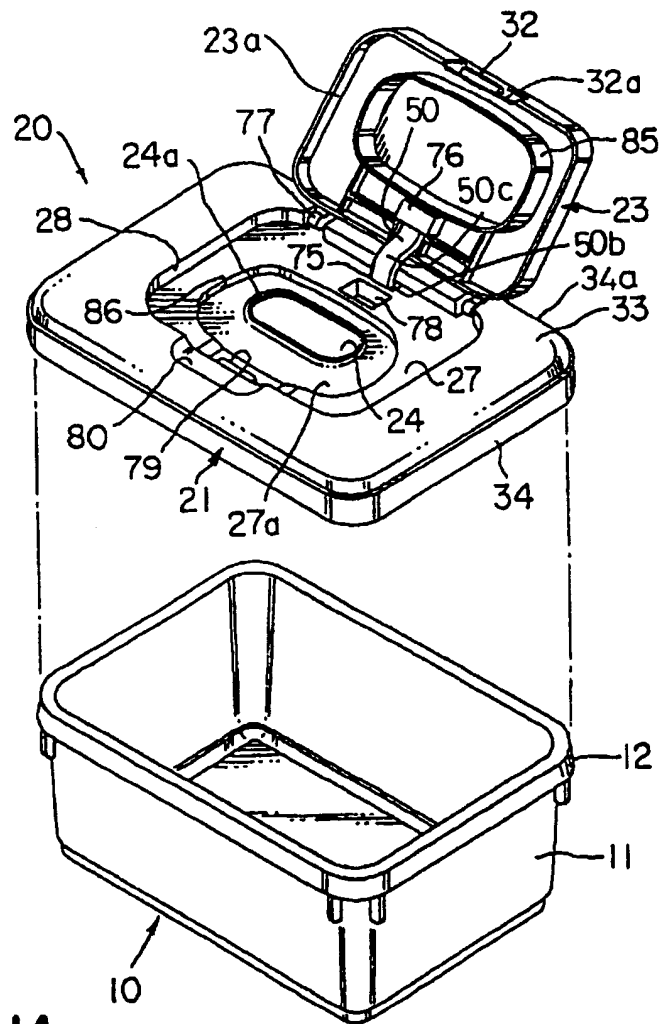


FIG.14

FIG.15

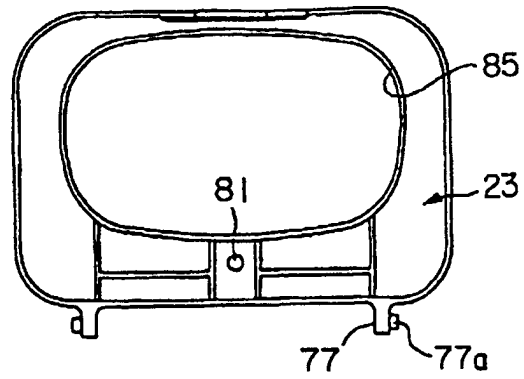


FIG.16

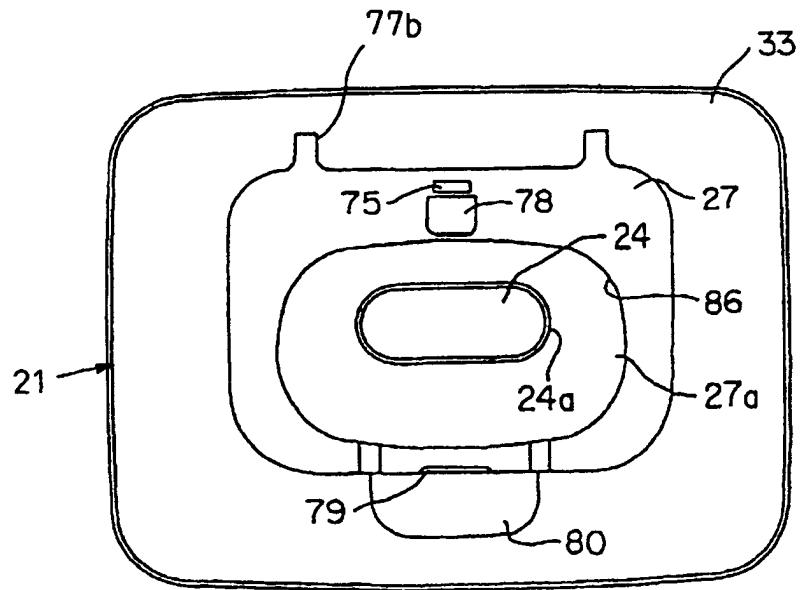


FIG.17

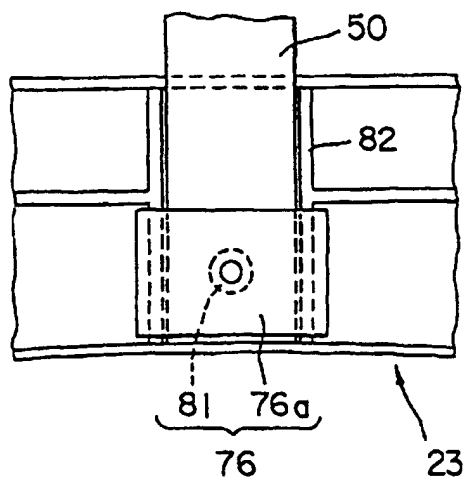


FIG.18

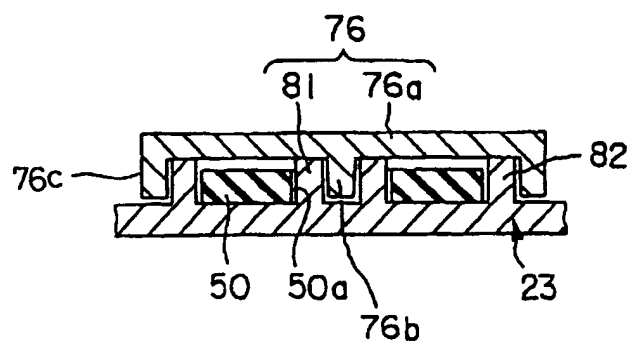


FIG.19

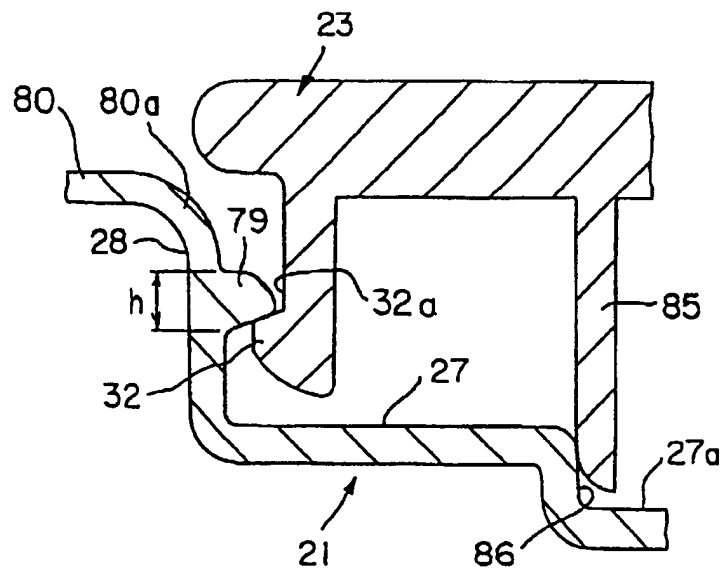


FIG.20

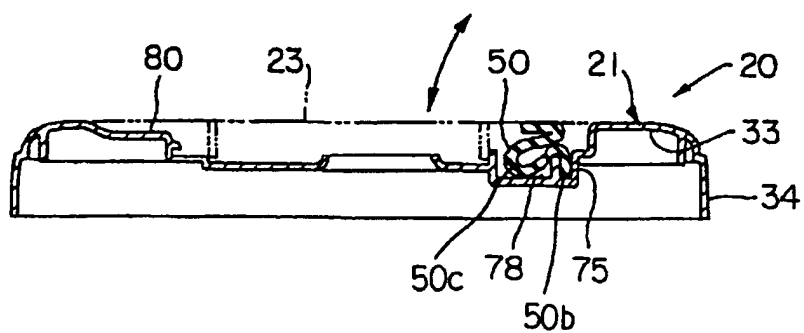


FIG.2IA

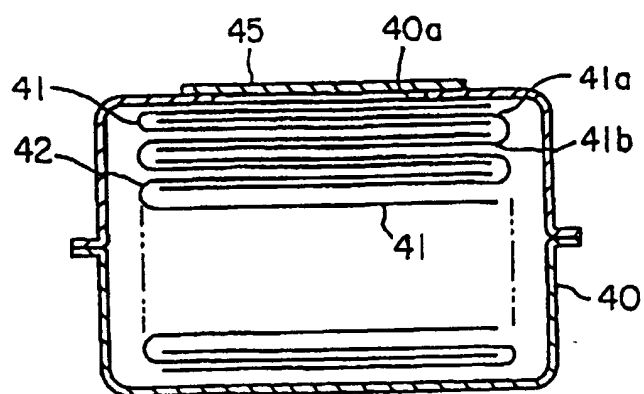


FIG.2IB

